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AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated in the following listing of all claims:

1. (Previously Presented) A method comprising:
evaluating one or more characteristics associated with one or more signals sent by a remote communication device to a local communication device, the signals being sent according to a communication protocol allowing variability in the one or more characteristics, the one or more characteristics varying for at least some implementations of the communication protocol; and
comparing the evaluated one or more characteristics to characteristics of signals sent by known devices.
2. (Original) The method as recited in claim 1 further comprising determining an identity of the remote communication device based on the comparing of the evaluated one or more characteristics.
3. (Original) The method as recited in claim 2 wherein the identity of the remote communication device is determined according to at least one of brand, type or model.
4. (Original) The method as recited in claim 1 wherein the evaluating occurs during a training phase establishing properties of a communication medium coupling the remote communication device to the local communication device.
5. (Original) The method as recited in claim 1 further comprising enabling a communication feature according to the comparing of the evaluated one or more characteristics to thereby better communicate with the remote communication device.
6. (Original) The method as recited in claim 5 wherein the remote communication device is a digital modem and the communication feature is a request for spectral shaping by an analog modem.

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7. (Currently Amended) The method as recited in claim 1 wherein the remote communication device includes one of a digital modem and an analog modem.

8. (Original) The method as recited in claim 1 wherein the evaluating is performed in a first communication device operating as a modem in accordance with ITU-T Recommendation V.90.

9. (Original) The method as recited in claim 1 further comprising enabling one or more performance enhancing or deficiency compensation features according to the comparing of the evaluated one or more characteristics.

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Previously Presented) An apparatus comprising:
means for evaluating one or more characteristics associated with one or more signals sent by a remote communication device coupled to the apparatus, wherein the one or more signals are sent according to a communication protocol allowing variability in the one or more characteristics; and
means for comparing the evaluated one or more characteristics to known characteristics to determine an identity of the remote communication device.

14. (Original) The apparatus as recited in claim 13 further comprising means for enabling one or more performance enhancing features according to the identification of the remote communication device.

15. (Original) The apparatus as recited in claim 13 further comprising means for enabling one or more deficiency compensation features according to the identification of the remote communication device.

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16. (Previously Presented) A computer program product encoded in at least one computer readable medium, comprising:

a first instruction sequence executable to evaluate one or more characteristics associated with signals sent by a remote communication device, wherein the one or more signals are sent according to a communication protocol allowing variability in the one or more characteristics; and

a second instruction sequence executable to compare the evaluated one or more characteristics to stored characteristics of known communication devices and to provide a comparison result.

17. (Original) The computer program product as recited in claim 16 wherein the comparison result is used to determine an identity of the remote communication device.

18. (Original) The computer program product as recited in claim 16, wherein the at least one computer readable medium is selected from the set of a disk, tape or other magnetic, optical, or electronic storage medium and a network, wireline, wireless or other communications medium.

19. (Original) The computer program product as recited in claim 16 further comprising an instruction sequence executable to enable a communication feature according to the comparison result to thereby better communicate with the remote communication device.

20. (Original) The computer program product as recited in claim 19 wherein the remote communication device is a digital modem and the feature is a request for spectral shaping by an analog modem.

21. (Original) The computer program product as recited in claim 16 wherein the computer program product is executable on a device having communication capability and which is coupled to the remote communication device.

22. (Currently Amended) The computer program product as recited in claim 17 ~~16~~ further comprising an instruction sequence executable to enable at least one of a performance

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enhancing or deficiency compensation feature according to the identification of the remote communication device.

23. (Currently Amended) The computer program product as recited in claim 16 wherein duration of one or more training signals are the one or more characteristics and wherein the second instruction sequence compares ~~the~~ a measured duration to stored duration values to identify the remote communication device.

24. (Currently Amended) An apparatus comprising:

a first device operable to measure one or more parameters associated with one or more signals sent during a communication session with a remote communications device;

storage elements containing known one or more parameters associated with one or more known communication devices; and

wherein the first device is operable to compare the measured one or more parameters of the one or more signals to the stored one or more parameters of known devices.

25. (Currently Amended) The apparatus as recited in claim 24 further comprising enabling one or more performance enhancing or deficiency compensation features according to the ~~compare~~ comparison of the measured one or more parameters.

26. (Original) The apparatus as recited in claim 24 wherein comparing the measured one or more parameters is used to determine an identity of the remote communications device.

27. (Original) The apparatus as recited in claim 24 wherein the one or more signals are sent during at least one of transceiver training and channel analysis.

28. (Original) The apparatus as recited in claim 24 wherein the one or more parameters is the number of symbols sent.

29. (Currently Amended) The apparatus as recited in claim 24 wherein the first device is a modem.


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30. (Cancelled)

31. (Cancelled)

32. (Original) The apparatus as recited in claim 24 wherein the apparatus is disposed on a single integrated circuit.

33. (Original) The apparatus as recited in claim 24 wherein the apparatus includes a general purpose processor.

 34. (Previously Presented) A method comprising:
evaluating one or more characteristics associated with one or more signals sent by a remote communication device to a local communication device, the signals being sent according to a communication protocol allowing variability in the one or more characteristics, as amongst implementations of the communication protocol;
and

comparing the evaluated one or more characteristics to characteristics of signals sent by known devices, wherein the local communication device performs the evaluating by measuring a duration of one or more training signals, duration of the one or more training signals corresponding to one or more characteristics of the one or more signals sent by the remote communication device.

35. (Currently Amended) The method as recited in claim 34 wherein an the identity of the remote communication device is determined according to at least one of brand, type or model.

36. (Previously Presented) The method as recited in claim 34 further comprising enabling a communication feature according to the comparing of the evaluated one or more characteristics to thereby better communicate with the remote communication device.

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37. (Previously Presented) The method as recited in claim 36 wherein the remote communication device includes a digital modem and the communication feature is a request for spectral shaping by an analog modem.

38. (Currently Amended) The method as recited in claim 34 wherein the remote communication device includes one of a digital modem and an analog modem.

39. (Previously Presented) The method as recited in claim 34 wherein the evaluating is performed in a first communication device operating as a modem in accordance with ITU-T Recommendation V.90.

40. (Previously Presented) The method as recited in claim 34 further comprising enabling one or more performance enhancing or deficiency compensation features according to the comparing of the evaluated one or more characteristics.

41. (Previously Presented) The method as recited in claim 34 wherein the training signals are modem training signals TRN_{1d} and TRN_{2d} and the duration of the modem training signals are measured and wherein during the comparing, the measured duration is compared to stored duration values to identify the remote communication device.

42. (Previously Presented) The method as recited in claim 34 wherein the duration is measured in terms of a number of symbols transmitted.

43. (Currently Amended) A computer program product encoded in at least one computer readable medium, comprising:

- a first instruction sequence executable to evaluate one or more characteristics associated with signals sent by a remote communication device; and
- a second instruction sequence executable to compare the evaluated one or more characteristics to stored characteristics of known communication devices and to provide a comparison result, wherein duration of one or more training signals correspond to the one or more characteristics and wherein the second instruction

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sequence compares ~~a~~ the measured duration to stored duration values to identify a remote communication device.

44. (Previously Presented) The computer program product as recited in claim 43, wherein the at least one computer readable medium is selected from the set of a disk, tape or other magnetic, optical, or electronic storage medium and a network, wireline, wireless or other communications medium.

45. (Previously Presented) The computer program product as recited in claim 43 further comprising an instruction sequence executable to enable a communication feature according to the comparison result to thereby better communicate with the remote communication device.

46. (Previously Presented) The computer program product as recited in claim 45 wherein the remote communication device is a digital modem and the feature is a request for spectral shaping by an analog modem.

47. (Previously Presented) The computer program product as recited in claim 43 wherein the computer program product is executable on a device having communication capability and which is coupled to the remote communication device.


48. (Previously Presented) The computer program product as recited in claim 43 further comprising an instruction sequence executable to enable at least one of a performance enhancing or deficiency compensation feature according to the identification of the remote communication device.

49. (Previously Presented) The computer program product as recited in claim 43 wherein duration of one or more training signals correspond to the one or more characteristics and wherein the second instruction sequence compares the measured duration to stored duration values to identify the remote communication device.

50. (Currently Amended) An apparatus comprising:

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a first device operable to measure one or more parameters associated with one or more signals sent during a communication session with a remote communications device, wherein the one or more signals include training signals and wherein the one or more parameters include duration of the training signals; and storage elements containing known one or more parameters associated with one or more known communication devices, wherein the first device is operable to compare the measured one or more parameters of the one or more signals to the stored one or more parameters of known devices.

 51. (Currently Amended) The apparatus as recited in claim 50 further comprising enabling one or more performance enhancing or deficiency compensation features according to the comparison ~~compare~~ of the measured one or more parameters.

52. (Previously Presented) The apparatus as recited in claim 50 wherein comparing the measured one or more parameters is used to determine an identity of the remote communications device.

53. (Previously Presented) The apparatus as recited in claim 50 wherein the one or more parameters include the number of symbols sent.

54. (Currently Amended) The apparatus as recited in claim 50 wherein the first device is a modem.

55. (Previously Presented) The apparatus as recited in claim 50 wherein the training signals are modem training signals TRN_{1d} and TRN_{2d} , the duration of the modem training signals being measured and compared to known durations to determine an identity of the remote communications device.